## CLAIMS

5

10

20

- 1. A method of authenticating the user (U) of a terminal (2) connected to an Internet type network, the method being characterized in that it comprises the following steps:
- setting up (E15) a communications channel in a secure mobile telephony network (GSM) between mobile equipment (3) of said user (U) situated close to the terminal (2) and an authentication unit (1) connected to said Internet type network;
- the terminal (2) downloading (E30) via said
   Internet type network a digital code from said
   authentication unit (1);
- said mobile equipment (3) sending (E40) a sound
   signal to said authentication unit (1), the sound signal being generated (E35) by the terminal (2) on the basis of said digital code; and
  - · authenticating said user (U) on the basis:
  - of the sound signal received (E40) via said
     mobile communications channel (GSM); and
  - of an identifier (GSM\_No) of said mobile equipment (3).
- An authentication method according to claim 1,
   characterized in that said mobile equipment (3) is a mobile telephone and said identifier of said mobile equipment (3) is its telephone number.
- 3. An authentication method according to claim 1,
  30 characterized in that said mobile equipment (3) complies with the GSM standard, and said identifier of said mobile equipment is its IMEI code.
- 4. An authentication method according to any one of claims 1 to 3, characterized in that it includes creating a digital audio file (.WAV) from said digital code, said

digital audio file being adapted to run automatically on the terminal (2) in order to generate said sound signal.

5. An authentication method according to any one of claims 1 to 4, characterized in that in order to proceed with said authentication, said identification unit (1):

5

20

30

- $\cdot$  samples (E45) the sound signal received by GSM (E40); and
- compares (E45) the result of said sampling with a
   copy of said digital code stored by said authentication unit (1).
- An authentication method according to any one of claims 1 to 5, characterized in that said sound signal is
   a DTMF code sequence.
  - 7. An authentication method according to any one of claims 1 to 6, characterized in that it further comprises a step (E20) of randomly generating said digital code prior to said downloading step (E30), and a destruction step (E70) of destroying said digital code after said authentication step or after a predetermined time period.
- 8. An authentication method according to any one of claims 5 to 8, characterized in that, after said authentication step, it further comprises:
  - $\cdot$  a step of said authentication unit (1) sending (E75) an SMS to said mobile equipment (3), said SMS comprising the date and the result of said comparison step (E45).
  - 9. An authentication system connected to an Internet type network, the system being characterized in that it comprises:
- means (10) for establishing a communications channel with mobile equipment (3) via a secure mobile telephone network (GSM);

- send means (20) for sending a digital code to a terminal (2) connected to said Internet type network;
- receive means (10) for receiving via said mobile communications channel (GSM) a sound signal from said mobile equipment (3), the sound signal being generated by the terminal (2) on the basis of said digital code; and

5

10

30

- authentication means (100) for authenticating the user (U) of said mobile equipment (3) as a function:
- of said sound signal received via said mobile communications channel (GSM); and
  - $\cdot$  of an identifier (GSM\_No) of said mobile equipment (3).
- 10. An authentication system according to claim 9, characterized in that said mobile equipment (3) is a mobile telephone and said authentication means take account of the identifier (GSM\_No) of said mobile equipment as constituted by its telephone number.
- 20 11. An authentication system according to claim 9, characterized in that said mobile equipment (3) complies with the GSM standard, and said decision means are adapted to authorize or refuse access by taking account of the identifier of said mobile equipment as constituted by its IMEI code.
  - 12. An authentication system according to any one of claims 9 to 11, characterized in that it further comprises means (70) for creating a digital audio file on the basis of said digital code, said digital audio file being adapted to run automatically on the terminal (2) to generate said sound signal.
- 13. An authentication system according to any one of 35 claims 9 to 12, characterized in that it further comprises:
  - · means (80) for sampling said sound signal; and

- identification means (90) suitable for comparing the result of said sampling with a copy of said digital code stored by said authentication unit (1).
- 5 14. An authentication system according to any one of claims 9 to 13, characterized in that said sound signal is a DTMF code sequence.
- 15. An authentication system according to any one of claims 9 to 14, characterized in that it further comprises:
  - means (60) for randomly generating said digital
     code; and
- destruction means (95) adapted to destroy said
   digital code on receiving an order from said
   identification means (90) or after a predetermined time
   period has elapsed.
- 16. An authentication system according to any one of claims 13 to 15, characterized in that it further comprises means (11) for sending an SMS to said mobile equipment (3), said SMS comprising the date and the result obtained by the identification means (90).